

QUICK REFERENCE: 2009 H1N1 Flu (SWINE FLU)

The United States declared a public health emergency in response to the recent reports of 2009 H1N1 (formerly known as swine flu). UnitedHealthcare wants to help you understand some important facts about the 2009 H1N1 Flu so you may take appropriate actions to help protect yourself and your family. We also recommend the CDC website or contacting a medical professional for more information.

The information in this document is based on information from the CDC. The CDC site notes that much of the information regarding the 2009 H1N1 Flu is based on studies and past experience with seasonal (human) influenza. CDC believes the information applies to the new 2009 H1N1 viruses as well, but the information cannot be considered definitive until appropriate studies have been completed.

You may also access up to date information and a flu shot clinic locator at <http://www.flu.gov/>

*****Important Information on the 2009 Influenza A Vaccine*****

- 1. The flu season is not over! Seasonal flu typically peaks in February and March and influenza activity can occur as late as May. In March 2010 the CDC reported increased 2009 H1N1 activity in some southeastern states, particularly Georgia. Additionally, the 2009 H1N1 virus is expected to continue circulating throughout 2010, including during the Southern Hemisphere flu season, which usually starts in April or May. Given these concerns, the CDC has issued new travel recommendations (see Question and Answer on travel precautions). Therefore, it is important to get vaccinated!**
- 2. Vaccination is still the best way to prevent influenza infection, including 2009 H1N1 Influenza A, and its complications.**
- 3. The 2009 H1N1 vaccine will be the same for the entire 2009-2010 influenza season, which extends into the spring of 2010. The "2009" in the name relates to the year the virus was first identified and not how long it will work or the year in which it should be administered.**
- 4. Although two flu shots (seasonal and 2009 H1N1) are recommended for this flu season, the FDA and WHO have recommended that the 2009 H1N1 vaccine be added to the 2010-2011 seasonal flu vaccine starting this fall. As a result, the influenza vaccine for the 2010-2011 flu season will contain a 2009 H1N1-like virus.**
- 5. According to the CDC a "third wave" of the 2009 H1N1 flu is possible through early fall 2010, before the 2010-11 trivalent influenza vaccine is available. Therefore, while the seasonal influenza vaccines typically become outdated by the end of June, vaccination against the 2009 H1N1 virus will continue through the summer 2010.**
- 6. To locate vaccine availability in your area go to www.flu.gov and click on vaccine locator. Flu.gov also has a Facebook application www.facebook.com/H1N1flu**

A Note on the safety of the 2009 H1N1 Vaccine

According to the CDC, the 2009 H1N1 Influenza A vaccine is being made the same way and by the same manufacturers as the seasonal flu vaccine and it is expected that the 2009 H1N1 flu vaccine will be as safe as the seasonal flu vaccine. Adverse events to any vaccine are closely monitored by the CDC using the Vaccine Adverse Event Reporting System (VAERS). The majority (95%) of adverse events reported to have occurred after administration of the 2009 H1N1 influenza vaccine have been minor (for example soreness at the vaccination site). It was also noted that the number of reports of serious health events was similar to what would be expected after distribution of a similar number of seasonal flu vaccinations.

Background and Symptoms

The virus involved in the current outbreak of the 2009 H1N1 Flu usually causes a respiratory infection caused by a type of influenza A (H1N1). This new influenza virus is spread from person to person in a manner similar to the way in which regular seasonal influenza viruses are spread, typically from tiny droplets placed in the air through coughing or sneezing. The symptoms of the 2009 H1N1 flu are very similar to seasonal influenza and generally include fever*, cough, sore throat, runny or stuffy nose, body aches, headache, chills and fatigue. Some people also develop vomiting or diarrhea. People whose immune systems do not work well (including people on corticosteroid medications) may develop typical signs and symptoms of influenza, but fever may not always be present. Also, it is important to note that young children

may not have typical symptoms, but may have rapid breathing, difficulty breathing and a low activity level. Infants in particular may present with fever* and lethargy, but may not have a cough or other respiratory symptoms.

****It's important to note that not everyone with the 2009 H1N1 flu will have a fever.***

Instructions

This document contains a list of Questions and Answers about the 2009 H1N1 Influenza A virus. You can navigate the document by clicking on one of the links below, which will either take you to a subject header or a specific question. You can also scroll through the document using the scroll bar on the far right of the screen. There is a Return to Top link after each question, which will bring you back to the beginning.

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General Information

How do you catch it?

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The virus is spread primarily from person to person by coughing and sneezing. Transmission may also be possible by touching surfaces contaminated with the flu viruses and through contact with bodily fluids such as diarrheal stool from a person with the flu.

Note: The 2009 H1N1 Flu CANNOT be contracted from eating pork and pork products. In addition, there is no evidence that 2009 H1N1 Flu is spread by drinking community tap water or through contact with appropriately disinfected recreational water such as those found in swimming pools, spas or water parks.

During what period of time are people contagious?

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According to the CDC, people infected with 2009 H1N1 flu shed the virus and may be able to infect others from 1 day before getting sick to 5 to 7 days after onset of illness. This period of shedding can be longer in some people, especially children and individuals with weakened immune systems.

How can I avoid catching it?

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People can take action to help prevent the spread of the virus.

- **The 2009 H1N1 vaccine will help prevent a person from contracting the 2009 H1N1 flu.**
- If you or a family member belongs to one of the groups prioritized for receiving the H1N1 vaccine, the CDC recommends you receive the 2009 H1N1 vaccine as soon as it is available.
- Frequent hand washing with soap and water, especially after you cough or sneeze. Alcohol-based hands cleaners are also helpful.
- Avoid contact with those who are ill. People at higher risk of complications from influenza should consider staying away from public gatherings.
- Avoid contact with surfaces that may be contaminated with the flu virus.
- Follow good general health habits, including getting adequate sleep; being physically active; staying appropriately hydrated; eating a nutritious diet and managing stress.
- Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it. If a tissue is not available, then cough or sneeze into your elbow.
- Do not touch your eyes, nose or mouth. Germs spread that way.
- If you get sick with an influenza-like illness, and are in a group at increased risk for severe disease or complications, contact your doctor to see if you need treatment with anti-viral medicines.

How long can the virus live on surfaces?

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Studies have shown that influenza virus can survive on environmental surfaces (such as cafeteria tables, doorknobs and desks) and can infect a person for up to 2-8 hours after being deposited on the surface.

Who is at risk of getting the 2009 H1N1 Flu?

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Anyone who does not have immunity to this particular virus strain is at risk. Since this is a new flu strain, it was originally thought that there was no pre-existing immunity to the virus. According to the CDC there are indications that some older people may have pre-existing immunity. However, since it is not possible to know who may have pre-existing immunity, everyone who has not had the disease confirmed through a laboratory test should be considered at risk.

Who should be considered at higher risk for severe illness or complications with 2009 H1N1 flu?

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People who should be considered at higher risk include people at higher risk for seasonal influenza complications including: pregnant women and women up to 2 weeks postpartum (including following pregnancy loss), persons with certain chronic medical conditions; persons 65 or older*; children younger than 5 years old (especially those younger than 2 years old)**; children and adolescents (age 18 years and under) who are receiving long-term aspirin therapy and who might be at risk for experiencing Reye syndrome after influenza infection; children with chronic medical conditions or developmental disabilities; residents of nursing homes and other chronic care facilities and those who are immunosuppressed. (For additional information regarding pregnant women, see below)

* While people over age 64 are the least likely to be infected with 2009 H1N1 flu, if they do become infected they are more likely than people in some other groups to develop serious complications from their illness.

** While children 2 years to 4 years old are more likely to require hospitalizations or urgent medical care for influenza compared with older children, this risk is much lower than the risk for children younger than 2 years old. Note: Children ages 2 years to 4 years old without high risk conditions, and who are not severely ill, do not necessarily need antiviral treatment (see previous question).

What is a pandemic and what does a Pandemic Alert Phase 6 mean?

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A **pandemic** is a global disease outbreak among humans. Pandemic phases are set by the World Health Organization as a way to advise governments, health ministries and other organizations about a possible pandemic. Pandemic phases are based on how an illness is spreading and does **not** address the *severity of the illness*.

A phase 6 alert is the highest level of a pandemic alert. It means that there is efficient and sustained human to human spread of the virus. During this phase, community level outbreaks are occurring in at least two regions of the world. While a phase 6 alert means that a global pandemic is underway, it still does not provide any indication of the severity of the disease or how individuals are being affected. During a phase 6 alert, international, national and local health agencies will continue to implement their plans to prevent the further spread of the virus.

If I am traveling are there any special precautions I should take?

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On June 11th in response to the ongoing global spread of the 2009 H1N1 flu, the World Health Organization raised the worldwide pandemic alert to Phase 6. Over the course of the year, 2009 H1N1 Flu has continued to be active both in the United States and internationally. Before travelling, consider contacting the U.S. Department of State for information on the level of activity of the 2009 H1N1 flu in your area of travel and any precautions, travel restrictions, quarantine measures or screening procedures that may be in place.

As the 2009 H1N1 virus is expected to continue to be active throughout 2010, the CDC is recommending that any traveler who wants to reduce the risk of getting sick with the 2009 H1N1 flu get the 2009 H1N1 vaccine. Optimally, the vaccine should be given at least two weeks before any contemplated travel. In addition, the CDC is specifically recommending that all college age students get the 2009 H1N1 vaccine before traveling during spring break because this

age group has been determined to be at high risk for complications from the 2009 H1N1 flu.

*Travelers who have had a **documented** case of the 2009 H1N1 flu do not need to get the 2009 H1N1 vaccine and those who have already received the 2009 H1N1 vaccine do not need to be revaccinated.*

Additional information is available from the U.S. Department of State at:
http://travel.state.gov/travel/cis_pa_tw/pa/pa_4493.html

NOTE: The CDC recommends that in order to reduce the spread of influenza on a commercial aircraft, air carrier employees and passengers who have an influenza-like illness should not travel until at least 24 hours after their fever has resolved without the use of fever-reducing medications.

How does the 2009 H1N1 flu compare to seasonal influenza in its manifestations and overall severity?

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To date, several key differences have been noted between 2009 H1N1 flu and seasonal influenza. These differences are summarized below:

- With seasonal influenza, adults over age 64 are at increased risk for complications. While people over age 64 are the least likely to be infected with 2009 H1N1 flu, if they do become infected they are more likely than people in some other groups to develop serious complications from their illness. Therefore, people 65 years and older are prioritized for treatment with antiviral drugs and should contact their doctor right away if they become sick with symptoms of an influenza like illness.
- It has been observed that the largest number of confirmed or suspected cases of 2009 H1N1 flu have occurred in people between the ages of 5 and 24. There have been few cases and few deaths reported in people over the age of 64. The CDC is currently conducting studies to see if there is natural immunity to the virus in certain age groups. Early reports indicate that 1/3 of adults over age 60 have antibodies against the virus, while no children and few adults younger than age 60 have been noted to have any existing antibodies. However, at this point, it is still unknown how much protection against 2009 H1N1 flu a person may have from existing immunity.
- Finally, when compared with the seasonal flu, the 2009 H1N1 flu has been associated with an even greater risk of complications in those who are pregnant or up to 2 weeks postpartum (including following pregnancy loss) or have other previously recognized high risk medical conditions (asthma, diabetes, suppressed immune systems, heart disease, and kidney disease).

What about the use of facemasks and N95 respirators?

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Facemasks block large droplets from entering the user's mouth or nose. Unlike respirators, they do not seal tightly to the face. Facemasks are considered an alternative to respirators, but they are not as effective in keeping small particles from transmission. N95 respirators are made to seal tightly to the user's face and filter out small particles. Proper use of a respirator requires fit testing, training and medical clearance and should not be used by people who have facial hair.

Current CDC recommendations:

- People who are at higher risk of severe illness from influenza should consider using a facemask or respirator if they are unable to avoid being in a crowded setting in a community with 2009 H1N1 flu.
- People who are at higher risk of severe illness from influenza and who must be a caregiver to a person with influenza like illness should use a facemask or respirator.
- People with 2009 H1N1 flu or an influenza like illness who must provide infant care should use a facemask during feedings and while caring for the infant

- Any person in a non-health care occupational setting in a community with 2009 H1N1 flu, who has specific work activities that includes close contact with people who have an influenza type illness, and who cannot avoid the setting may consider using a facemask or respirator.

Health care workers who are caring for people with confirmed or suspected 2009 H1N1 or influenza-like illness should use a respirator. Under these circumstances, people who are at higher risk for severe illness should consider temporary reassignment. Persons with confirmed or suspected 2009 Influenza A (H1N1) should use a facemask, if available and tolerable when they are:

- at home and sharing common spaces with other household members
- in a non-health care setting
- in a health care setting but outside of their room
- breastfeeding.

If a facemask is not available or not tolerable, a tissue should be used to cover coughs and sneezes. For more information on the use of facemasks and respirators please see the CDC website:

<http://www.cdc.gov/h1n1flu/masks.htm>.

In the late spring, the CDC no longer advised that schools be closed for a suspected or confirmed case of 2009 H1N1 Flu. In preparation for the 2009-2010 school year, the CDC has developed guidance for schools on how to decrease the spread of flu among students and school staff. This guidance also provides information for making decisions on a local level. For additional information go to:

<http://www.cdc.gov/h1n1flu/schools/schoolguidance.htm>

What are the recommendations regarding school closures?

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Vaccine Information

Is there a vaccine available for 2009 H1N1 flu?

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There are two kinds of 2009 H1N1 vaccines available for the prevention of the 2009 H1N1 flu: a 2009 H1N1 flu shot and the 2009 H1N1 nasal spray flu vaccine. The “flu shot,” which is given by injection and contains killed virus, is approved for use in people 6 months of age and older, including healthy people, people with chronic medical conditions and pregnant women. The nasal spray vaccine contains a live, weakened influenza virus that does not cause the flu and is approved for use in healthy people 2 years to 49 years of age who are not pregnant. **Pregnant women should not receive the nasal spray form of the influenza vaccine.** For children younger than 10 years of age, the CDC recommends that the two doses of 2009 H1N1 vaccine be given, separated by 4 weeks.

The live, attenuated (nasal spray) and inactivated (flu shot) 2009 H1N1 Influenza vaccines were initially available only in limited quantities for specific populations. Since production of the vaccine has increased, groups that were initially not on the high priority list can now be targeted for vaccine administration (see below).

High Priority Groups for the 2009 H1N1 Vaccines

The CDC’s Advisory Committee on Immunization Practices recommended the following populations be considered as high priority for receiving the 2009 H1N1 flu vaccine:

- Pregnant women (pregnant women should receive the inactivated 2009 H1N1 vaccine, or the “flu shot;” the nasal spray form is not approved for use in pregnant women)
- Household contacts and caregivers for children younger than 6 months of age
- Healthcare and emergency medical services personnel
- All people from 6 months through 24 years of age
- Persons aged 25 through 64 years who have health conditions associated with higher risk of medical complications from influenza.

As supplies of the vaccines have increased, it now has been recommended to vaccinate anyone who wants to be vaccinated as soon as the needs of the initial high priority groups have been met. Because the influenza season is expected to continue for months, the CDC encourages people who were not in the initial target groups but have been waiting, to get vaccinated when the vaccine becomes available. Everyone interested in receiving the 2009 H1N1 vaccine should contact their health care provider or local health agency for information on vaccine availability in their area.

Some groups should receive both the seasonal and 2009 H1N1 flu vaccines; the inactivated 2009 H1N1 flu vaccine and the inactivated seasonal flu vaccine may be administered at the same time if different anatomic sites are used. However, because the seasonal vaccine still may be available before the 2009 H1N1 vaccine, and the seasonal flu viruses are still expected to cause illness this winter, people are encouraged to get their seasonal flu vaccine as soon as it is available.

Is the 2009 H1N1 Influenza A vaccine safe?

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The 2009 H1N1 Influenza A vaccine is being made by the same manufacturers the same way as the seasonal flu vaccine and, according to the CDC, the 2009 H1N1 influenza vaccine should be as safe as the seasonal flu vaccines. All adverse events to any vaccine are closely monitored by the CDC using the Vaccine Adverse Event Reporting System (VAERS). The majority (95%) of adverse events reported to have occurred after administration of the 2009 H1N1 influenza vaccine have been minor (for example soreness at the vaccination site). It was also noted that the number of reports of serious health events was similar to what would be expected after administration of a similar number of seasonal flu vaccinations.

Will vaccination against seasonal flu protect me from the 2009 H1N1 flu?

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The seasonal flu vaccine will not protect you against the 2009 H1N1 flu. ***Therefore, in order to prevent seasonal flu infection, it is very important that those persons for whom seasonal flu vaccine is recommended receive it as soon as it is available.*** Because the seasonal vaccine may be available to some groups of people before the 2009 H1N1 vaccine becomes available, and because the seasonal flu viruses are still expected to cause illness this winter, people are encouraged to obtain the seasonal flu vaccine and not wait for availability of the 2009 H1N1 vaccine.

Who should NOT receive the 2009 H1N1 vaccine?

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According to the CDC, the following people should not get any flu vaccine without first consulting a physician:

- People who have a severe allergy to chicken eggs.
- People who have had a severe reaction to an influenza vaccination.
- People who developed Guillain-Barré syndrome (GBS) within 6 weeks of getting an influenza vaccine previously
- Children younger than 6 months of age (influenza vaccine is not approved for this age group)

People who have a moderate-to-severe illness with a fever (they should wait until they recover to get vaccinated.)

I have already had a documented infection with the 2009 H1N1 virus. Can I get infected again?

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Getting infected with any influenza virus, including 2009 H1N1, should result in immunity to that virus, so it is not likely that a person would be infected with the identical influenza virus more than once. However, people with weakened immune systems might not develop full immunity after infection and may be more likely to get infected with the same influenza virus more than once.

If you tested positive for the 2009 H1N1 influenza A virus you do not need to get the 2009 H1N1 vaccine. If, however, you had a flu like illness that either tested negative for the 2009 H1N1 flu virus or you were not tested for the virus, you should still get the 2009 H1N1 vaccine as recommended by the CDC.

Is it safe to receive both the seasonal flu vaccine and the 2009 H1N1 vaccine at the same time?

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The 2009 H1N1 flu vaccine is not intended to replace the seasonal flu vaccine. Each vaccine should be given to populations identified by the ACIP. The populations eligible for seasonal flu vaccine and 2009 H1N1 flu vaccine are not the same, although there are some groups that should receive both vaccines. At the present time, the CDC anticipates that both the 2009 H1N1 flu vaccine and the seasonal flu vaccine may be administered on the same day. Simultaneous administration of the inactivated seasonal and 2009 H1N1 flu vaccines is permissible, if different anatomic sites are used. However, simultaneous administration of live, attenuated seasonal and 2009 H1N1 flu vaccines is not recommended.

PLEASE NOTE: People recommended to get both vaccines should not wait until the 2009 H1N1 vaccine is available to get their seasonal flu vaccine.

Is it safe to receive the 2009 H1N1 flu vaccine at the same time that other vaccines are given?

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The CDC states that inactivated 2009 H1N1 vaccine can be administered at the same visit as any other vaccine, including pneumococcal polysaccharide vaccine. Live 2009 H1N1 vaccine can be administered at the same visit as any other live or inactivated vaccine **EXCEPT** the live seasonal influenza vaccine.

What is the difference between the intranasal and injectable vaccine?

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The seasonal and 2009 H1N1 flu vaccines can be given by shot or by nasal spray. The injectable vaccine, or the "flu shot," is made with a killed flu virus. It is given with a needle, usually in the arm. The other type of flu vaccine, a nasal spray, is made with a live, weakened flu virus. The nasal spray flu vaccine should be used only in healthy people 2-49 years of age who are not pregnant. The nasal spray vaccine is safe for women after they have delivered, even if they are nursing.

What are the side effects of the 2009 H1N1 vaccine?

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The side effects of the 2009 H1N1 vaccine are expected to be the same as those typically associated with the seasonal flu vaccine. The side effects of the flu shot are:

- Soreness, redness, or swelling where the shot was given
- Fever (low grade)
- Aches

If these problems occur, they begin soon after the shot, are usually mild, and usually last 1 to 2 days. Most people who receive influenza vaccine have no serious problems from it. However, on rare occasions, flu vaccination can cause serious problems, such as severe allergic reactions to one of the components of the vaccine.

For children, the side effects of the nasal spray are:

- runny nose
- wheezing
- headache
- vomiting
- muscle aches
- fever

For adults, the side effects of the nasal spray are:

- runny nose
- headache
- sore throat
- cough

What is thimerosal and is it safe to receive a flu shot with thimerosal?

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Thimerosal is a mercury-based preservative that has been used for decades in the United States to prevent contamination and the growth of microorganisms in multi-dose vaccine vials (vials containing more than one dose), which can cause serious illness or death. Since seasonal influenza vaccine is produced in large quantities for annual immunization campaigns, some of the vaccine is produced in multi-dose vials and contains thimerosal to safeguard against possible contamination of the vial once it is opened. If you have an allergy to thimerosal, then you should discuss this with your doctor before getting either the seasonal or 2009 H1N1 vaccines. If you are eligible, the nasal vaccines

may be an option for you.

Three leading federal agencies (CDC, FDA, and NIH) have reviewed the published research on thimerosal and found it to be a safe product to use in vaccines. In addition, three independent organizations [The National Academy of Sciences' Institute of Medicine, Advisory Committee on Immunization Practices (ACIP) of the Centers for Disease Control and Prevention (CDC), and the American Academy of Pediatrics (AAP)] have reviewed the published research and also found thimerosal to be a safe product to use in vaccines.

Treatment Information

What should I do if I become ill?

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If you are ill, you should stay home and avoid contact with others to help control the spread of the disease. The following people should speak with their doctor regarding possible need for anti-viral treatment:

- People with severe flu symptoms
- Children under age 5
- People who have chronic medical conditions
- Children and adolescents (age 18 and under) who are receiving long-term aspirin therapy and who might be at risk for experiencing Reye syndrome after influenza infection
- Children with chronic medical conditions or developmental disabilities
- Women who are pregnant and women up to 2 weeks postpartum (including following pregnancy loss)
- People who are 65 years of age or older, residents of nursing homes and other chronic care facilities
- Those whose immune systems don't work normally

Are there symptoms that require emergency medical attention?

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Symptoms that require emergency evaluation and medical care include :

- Trouble breathing, shortness of breath or rapid breathing
- Chest pain or pressure
- Stomach pain
- Sudden dizziness
- Confusion
- Severe or frequent vomiting
- Getting better, followed by a return of fever and worsening cough

Please note: Severe symptoms may require accessing **911** or your local emergency medical services.

Additional emergency symptoms, particularly in children are:

- Skin color turning blue – **call 911**
- Not able to wake up your child (or sick person) or they are not interacting with you– **call 911**
- Inability to drink enough liquids to stay hydrated
- Fever with a rash
- Being so irritable that your child does not want to be held

Keep in mind that you should not go to the emergency room if you are only mildly ill because, if you are not sick with the flu, you may catch it from people there who do have it.

What can I do to treat the symptoms of the flu?

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Some things you may want to consider to treat the symptoms of the flu include:

- Running a cool mist humidifier to help keep mucous membranes moist and relieve a dry cough. Make sure you clean the humidifier daily according to the manufacturer's directions.

Using acetaminophen (Tylenol®) or ibuprofen (Advil®) to treat the fever and physical discomforts; make sure you read the package directions and precautions to make sure this is the correct medication for you and your

What do I need to know about dehydration and the flu?

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symptoms. Children and adolescents (age 18 years and under) should not receive aspirin to treat flu symptoms. People who are sick with the flu need to drink an adequate amount of fluids to prevent getting dehydrated. The CDC recommends clear fluids, such as water, broth, or sports drinks, and avoiding alcoholic drinks and fluids that contain caffeine, such as colas, tea, and coffee.

Here are some things to look for when determining if the sick person is adequately hydrated:

- Are they going to bathroom frequently and is their urine strong or dark in color?
- Do babies and young children have frequent wet/heavy diapers and cry tears?
- Is the inside of their mouth moist?

Is their skin dry and does it take a long time to go back to position when pinched?

How is it treated?

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While it is expected that most people will recover without needing medical care, the CDC suggests the anti-viral medicines called Tamiflu® and Relenza® for the treatment and prevention of the 2009 H1N1 flu virus, if needed. These medications are most effective if taken within 2 days of the development of symptoms. Recommendations for appropriate treatment are discussed below in answer to a separate question.

It is important not to confuse Tamiflu (oseltamivir), which is a prescription anti-viral medication your doctor may prescribe to treat the flu, with Theraflu, an over-the-counter medication that may be taken to treat the symptoms of the flu.

IMPORTANT: Aspirin or aspirin-containing products should not be given to any one aged 18 years of age or younger, including confirmed or suspected cases of 2009 H1N1 flu due to the chance of Reye syndrome. Medicines like acetaminophen (e.g., Tylenol) may be used to treat the symptoms. Children younger than 4 years of age should not be given over-the-counter cold medications without first speaking to a healthcare provider.

What are the most common side effects of the anti-viral medications?

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The most common side effects of anti-viral medications are similar to flu-like symptoms. For example:

- Tamiflu can cause nausea and vomiting, which can be minimized by taking the medication with food.
- Relenza can cause dizziness, sinusitis, runny or stuffy nose, cough, diarrhea, nausea, or headaches. People with lung disease can also develop wheezing and trouble breathing after taking Relenza; therefore, people with a history of asthma or another lung disease should not take this medication.

When should I get medication from my doctor?

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Antiviral medicines are available for people 1 year or older, though the Food and Drug Administration (FDA) has authorized emergency use of certain medicines in children under the age of 1. Many people who develop 2009 H1N1 Flu, but who are not in a higher risk group, have had a self limited respiratory illness similar to typical seasonal influenza. As a result, it is expected that most people will recover without needing antiviral medications. Currently, the CDC's recommendations for **antiviral treatment** are as follows:

1. All hospitalized patients with confirmed or suspected 2009 influenza (H1N1)
2. Patients with suspected or confirmed influenza who are at higher risk for seasonal influenza complications. (see next section for a list of people at higher risk for complications or severe illness)

Additionally, antiviral drugs are recommended to treat any suspected influenza patient who presents with emergency warning signs (such as difficulty breathing, shortness of breath, or lower respiratory tract symptoms). For all patients their healthcare providers will make the final decision regarding

treatment based on their clinical judgment. Anti-viral treatment is most effective if started within the first two days of symptoms.

Patients who are at increased risk for influenza complications should contact their doctor if they develop symptoms consistent with an influenza infection.

Recommendations from the CDC for preventive drug treatment in people who are not ill:

Preventive treatment with either oseltamivir or zanamivir *in people who have already been exposed to the 2009 H1N1 influenza virus* may be considered for the following:

1. Close contacts of cases (confirmed or suspected) who are at high-risk for complications of influenza (see next section for a list of people at higher risk for complications or severe illness)
2. Health care personnel, public health workers, or first responders who have had a recognized, unprotected close contact exposure to a person with 2009 (H1N1) influenza virus infection (confirmed or suspected) during that person's infectious period.

Preventive treatment for people who *have not yet been exposed* to the virus should only be used in limited circumstances and in consultation with local public health authorities.

Flu infections can lead to or occur with bacterial infections. In that case, people will likely need to also take antibiotics. A long or severe case of the flu that seems to get better, but then gets worse again, may be a sign of a bacterial infection. People with concerns about the course of their symptoms should check with their doctor.

What should I do if I am prescribed anti-viral medications but cannot obtain them from my local pharmacy?

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If you are having difficulty filling your prescription for anti-viral medicines, speak with your doctor or contact your local health department. Either of these sources may be able to direct you as to where you can fill your prescription.

What advice is there for the care of a person sick with confirmed or suspected 2009 H1N1Flu at home?

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Updated information from the CDC on the home care of a person who is ill with the 2009 H1N1 Flu can be found at:

http://www.cdc.gov/swineflu/guidance_homecare.htm. Things to think about:

- The sick person should not have visitors at home other than caregivers. A phone call is safer than a visit.
- Keep the sick person in a room separate from the common areas of the house with the door kept closed.
- If possible, have only one adult in the home take care of the sick person.
- Consider use of a facemask or respirator by the selected caregiver if the caregiver is at higher risk for severe illness from 2009 H1N1 flu and no one else is available to care for the sick person.
- Avoid having pregnant women care for the sick person. Pregnant women and women up to 2 weeks postpartum (including following pregnancy loss) are at a higher risk of flu-related problems and resistance may be lower during pregnancy and up to 2 weeks postpartum.
- If the sick person needs to be in a common area of the home near

- others, have the sick person should wear a facemask.
- If possible, the sick person should use a separate bathroom.
- If the sick person requires respiratory treatments using a nebulizer, treatments should be performed, if at all possible, in a separate room away from common areas of the home. Caretakers helping with respiratory treatments should wear an N95 respirator when helping with the treatments.
- Everyone in the household should clean their hands with soap and water or an alcohol-based hand rub often, including after EVERY contact with the sick person or the sick person's room or bathroom.
- Make sure the sick person covers coughs and sneezing with a tissue and is washing their hands frequently, especially after coughing and sneezing. Tissues should be thrown in the trash immediately after use.
- Use paper towels for drying hands after hand washing or use cloth towels for each person in the household. For example, have different colored towels for each person.
- Caregivers should talk to their doctor about taking anti-viral medicine to stop them from getting the illness and if other household members should use antiviral medications.
- Caregivers should check themselves and household members for flu symptoms and call a telephone hotline or a doctor if they feel sick.
- *Household contacts who are at increased risk for complications* from the flu should talk to their healthcare provide about taking an antiviral medication to prevent them from contracting the illness

If I or a member of my family is ill with a flu-like illness, what can we do to prevent the spread of the disease?

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In addition to the information discussed above, people who get a flu-like illness should stay at home for at least 24 hours after they are free of fever (100° F [37.8°C]) or signs of a fever without the use of fever-reducing medications. If a person wishes to seek doctor's care, they should call their doctor before traveling to their office. Those with severe symptoms (for example, trouble breathing) should seek immediate medical attention. If someone must leave their home, he should wear a facemask or cover coughs and sneezes with a tissue to help lower the chance of spreading the virus. Of course, those in home isolation should wash their hands often or use alcohol-based hand gels. As a rule, hand washing should be performed for at least 20 seconds. It is best to avoid close contact and spend the least amount of time with the sick person. However, if others at home are likely to be within 6 feet of the ill person, the ill person should wear a face mask. Additionally:

- Surfaces, (particularly bedside tables, door knobs, bathroom surfaces and toys for children) should be kept clean by wiping them down using a household disinfectant as directed on the product label. You can also clean these surfaces using water and dish soap.
- Linens, eating utensils and dishes used by those who are sick do not need to be cleaned separately but they should not be shared without washing thoroughly first..
- Wash linens by using household laundry soap and tumble dry on a hot setting. Care should be taken not to "hug" the laundry prior to washing. Wash hand immediately after handling dirty linens.
- Eating utensils should be washed either in a dishwasher or by hand with water and soap.

Finally, be sure to follow public health advice regarding school closures, avoiding crowds, and other social distancing measures. Persons who are well but who have an ill family member with 2009 H1N1 flu can go to work as usual but should monitor their health daily and take the previously discussed precautions to help limit their risk of developing 2009 H1N1 flu. If they become ill, they should notify their supervisors and remain home.

Pregnancy and Postpartum Information

I am pregnant, or might be pregnant, is there anything special I need to know?

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Severe illness associated with 2009 H1N1 flu has been reported among pregnant women, women up to 2 weeks postpartum (including following pregnancy loss), and infants. These problems may include early labor or severe pneumonia. To help avoid catching 2009 H1N1 Flu, it is important for pregnant women and women up to 2 weeks postpartum to take the same preventive actions recommended for the general population. **The best means to prevent getting the 2009 H1N1 Flu is to get a flu shot.** Pregnant women are in the prioritized groups recommended by the CDC to receive the 2009 H1N1 vaccine. Additionally, the CDC recommends early treatment with anti-viral medications for pregnant women and women up to 2 weeks postpartum (including following pregnancy loss) with suspected influenza illness. If you develop symptoms of the flu, contact your doctor right away to see if you need to begin treatment with anti-viral medicine. Treatment should begin as soon as possible and not be delayed while awaiting results of laboratory testing. If you do develop flu-like symptoms, be sure to treat any fever right away. Acetaminophen (e.g., Tylenol) is the best treatment of fever in pregnancy.

Emergency evaluation should be obtained if you develop any of the following:

- Trouble breathing, shortness of breath or rapid breathing
- Chest pain or pressure
- Stomach pain
- Sudden dizziness
- Confusion
- Severe or frequent vomiting
- Decreased or no movement of your baby
- A higher fever that is not responding to acetaminophen (Tylenol)

Pregnant women and women up to 2 weeks postpartum (including following pregnancy loss) who are close contacts of people with suspected or confirmed 2009 influenza A H1N1 virus should be considered for treatment even before symptoms develop. It is important, therefore, to contact your doctor, who can help decide whether testing or treatment is needed.

Do healthcare workers who are pregnant need to follow any special precautions?

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According to the CDC, pregnant women and women up to 2 weeks postpartum (including following pregnancy loss) who are likely to be in direct contact with patients with confirmed, probably or suspected 2009 H1N1 influenza A should consider reassignment to lower-risk activities. If reassignment is not possible, the CDC recommends avoiding participation in procedures that may generate increased small-particle aerosols of respiratory secretions. For additional information go to:

<http://www.cdc.gov/h1n1flu/guidance/pregnant-hcw-educators.htm>

I am pregnant, or might be pregnant; is there anything special I need to know about the 2009 H1N1 and seasonal flu vaccines?

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- For both the 2009 H1N1 and seasonal flu vaccines, pregnant women should get the **flu shot**, which contains the inactivated or killed influenza virus. The nasal-spray flu vaccines, which contain the live influenza viruses, are not approved for use in pregnant women.
- It is okay for family, household members, and other close contacts of pregnant women to receive the live nasal spray vaccine (if they're eligible).
- The 2009 H1N1 flu vaccine is being made the same way as the seasonal flu vaccine. The latter vaccine, which is already recommended for pregnant women, has not been shown to cause harm to a pregnant woman or her baby. Studies of the 2009 H1N1 influenza vaccine will start in September, but it is anticipated that the vaccine containing the inactivated or killed 2009 H1N1 virus (flu shot) will be safe for pregnant women.
- The side effects from 2009 H1N1 influenza vaccine are expected to be similar to those from seasonal flu vaccines. Speak with your healthcare provider about any concerns you have regarding possible side effects or reasons you should not receive the vaccine. People who have a severe

I have a baby at home. Are there any special precautions I need to take?

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- allergy to eggs or any other substance in the vaccine should not get it.
- Pregnant women can receive the 2009 H1N1 vaccine anytime during their pregnancy.
- If you are pregnant or are up to 2 weeks postpartum (including following pregnancy loss), and think you may have the flu or may have had close contact with some one who has the flu, call your doctor right away. He or she may prescribe an anti-viral medicine that treats the flu. This medicine is most effective is started with the first 48 hours of becoming sick. Anti-viral medications can be taken at any stage during pregnancy.
- For more information on the 2009 H1N1 flu vaccine and pregnant women please see the CDC website:

http://www.cdc.gov/H1N1flu/vaccination/pregnant_ga.htm

Infants who are not breast fed are more vulnerable to infection and hospitalization from severe respiratory illness than breastfed infants. Consequently, the CDC encourages mothers who are not ill with influenza to initiate breastfeeding early and to feed frequently. In order to provide as much maternal antibodies as possible, the CDC also recommends avoiding unnecessary formula supplementation.

Additionally, only adults who are not sick should feed and care for infants, if possible. Women who are ill but are able to express their milk for bottle feedings by a health family member should be encouraged to do so. If a healthy adult is not available to care for your infant, breast feeding mothers should take the following precautions when feeding and caring for their infant:

- Pay careful attention to hand washing prior to any contact.
- Prior to breastfeeding, wash breast with mild soap and water; rinse well.

Wear a facemask to prevent nasal secretions and a spontaneous cough or sneeze from infecting the infant.

- Use clean blankets and burp cloths for each contact.

Women who are breast feeding and have been prescribed anti-viral medications to treat flu-like symptoms should express their milk for bottle feedings by a healthy family member, if possible. Women who have been prescribed anti-viral medications to help *prevent* the flu because they have been exposed to the virus can continue breast feeding as long as they do not have symptoms of the flu. (For additional information on breastfeeding and 2009 H1N1 flu, see precautions discussed in the previous section.)

Note: The risk for 2009 H1N1 flu transmission through breast milk is unknown, but reports of seasonal flu infection in the bloodstream are rare. If either you or your baby is ill, the CDC recommends that you do NOT stop breastfeeding.

I am breast-feeding and have been prescribed an anti-viral medication for 2009 H1N1 Flu. Can I continue to breast feed my infant?

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Information on other special conditions

What do we know about the connection between the 2009 H1N1 Influenza A virus and pneumococcal infections?

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It is known that infection with any of the influenza viruses (including 2009 H1N1 Influenza A) can make a person more susceptible to pneumococcal infections. This serious complication can result in pneumonia (lung infection), bacteremia (blood infection), and meningitis (infection of brain and spinal cord). There are two types of vaccines for the prevention of pneumococcal disease. For more information on the pneumococcal vaccine, and for whom it is recommended, please see the CDC website below or speak with your physician.

http://www.cdc.gov/h1n1flu/vaccination/public/public_pneumococcal.htm

Is there anything special that people with asthma need to know?

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According to the CDC, people with asthma can get seriously ill with the 2009 H1N1 flu and they are at increased risk for health complications, such as pneumonia. Therefore, if you or your child has asthma and becomes sick with flu like symptoms call your doctor right away so he can decide if one of the anti-viral medications is needed. In addition to the preventive recommendations noted previously, people with asthma should get both the seasonal and 2009 H1N1 flu shots (not the nasal spray vaccines) and speak with their doctor to see if they need an updated action plan.

Is there anything special that people with diabetes need to know?

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People with diabetes are at increased risk for severe disease and complications from both the 2009 H1N1 flu and seasonal flu. In addition to an increased risk of developing flu-related complications, influenza may also interfere with your blood glucose management. Therefore, the CDC recommends that, in addition to following the usual everyday precautions, everyone age 6 months and older get a 2009 H1N1 "flu shot" if they have type I or type II diabetes. People with type I or type II diabetes should NOT receive the nasal spray flu vaccine.

Additionally, the CDC recommends that people with diabetes who have suspected or confirmed 2009 H1N1 infection be treated with antiviral medications (Tamiflu or Relenza). Therefore, if you develop symptoms of influenza, call your doctor as he or she may prescribe medicine to help you fight the flu. You should also continue to take your diabetes medicine and monitor your sugar. Based on your blood sugar records and clinical symptoms, your health care provider may adjust your medications.

Is there anything special that people with disabilities need to know?

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People with certain types of disability have a greater risk of getting flu-related complications, such as pneumonia, because certain physical disabilities can affect how well their body deals with the infection. In addition, people with conditions that affect their immune system are at increased risk for more severe illness and hospitalization. Cognitive disabilities can also lead to difficulty processing information and making decisions, which can decrease an individual's ability to follow through with proper hand washing, cough and sneeze protection, self-monitoring of illness, and avoidance of contact with people who are ill.

Some of the people with disabilities who might be considered at risk for becoming infected or not realizing they are ill include those who:

- have limited mobility or who cannot limit coming into contact with others who are infected (such as staff and family members)
- have trouble understanding or practicing preventive measures
- may not be able to communicate symptoms of illness or may not be monitored closely for symptoms of the flu.

Is there anything special that people who are overweight need to know?

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In the past, obesity (BMI >30) and morbid obesity (BMI >40) have not been considered risk factors for serious flu related complications. However, recent research supports the conclusion that morbid obesity, with or without the presence of other underlying high risk health conditions, is associated with a higher risk of 2009 H1N1-related hospitalization and, possibly death.

Therefore, the CDC has determined that it is especially important for people who are morbidly obese (BMI>40) to:

- receive the 2009 H1N1 vaccine.
- follow the usual everyday precautions
- be treated with antiviral medications (Tamiflu or Relenza) if they have suspected or confirmed 2009 H1N1 infection.

If you are overweight and develop symptoms of influenza, call your doctor as he or she may prescribe medicine to help you fight the flu.